Title: ROAMING APPARATUS, SYSTEMS, AND METHODS WITH A PLURALITY OF RECEIVERS COUPLED TO A FIRST FRRQUENCY REFERENCE TO COMMUNICATE WITH A FIRST STATION AND SELECTIVELY COUPLING ONE RECEIVER TO A SECOND FREQUENCY REFERENCE TO COMMUNICATE WITH A SECOND STATION (as amended)

# IN THE CLAIMS

Please amend the claims as follows:

# 1. (Currently Amended) A method, comprising:

coupling a plurality of receivers to a first frequency reference to communicate with a first station over a corresponding plurality of signal paths, wherein the plurality of receivers comprises at least three receivers: [[and]]

selectively coupling one of the plurality of receivers to a second frequency reference to communicate with a second station over a signal path not included in the plurality of signal paths; and

handing off communications with the plurality of receivers from the first station to the second station after determining that a quality of service provided by the second station is greater than a quality of service provided by the first station.

wherein the plurality of receivers are configured to operate as a multiple-input multipleoutput system, and wherein selectively coupling one of the plurality of receivers to the second frequency reference further includes

decoupling the one of the plurality of receivers from operating as a part of the multiple-input multiple-output system, while continuing to operate at least two of the plurality of receivers as a multiple-input multiple-output system;

coupling the one of the plurality of receivers to operate as a search receiver independent from the multiple-input multiple-output system;

the search receiver using a new reference frequency different from the first frequency reference; and

the search receiver communicating with the second station using the new reference frequency.

## (Canceled)

Serial Number: 10/726,054 Filing Date: December 2, 2003

Title: ROAMING APPARATUS, SYSTEMS, AND METHODS WITH A PLURALITY OF RECEIVERS COUPLED TO A FIRST FREQUENCY REFERENCE TO COMMUNICATE WITH A FIRST STATION AND SELECTIVELY COUPLING ONE RECEIVER TO A SECOND FREQUENCY REFERENCE TO COMMUNICATE WITH A SECOND STATION (as amended)

- 3. (Currently Amended) The method of claim  $\underline{1}$  [[2]], wherein the quality of service provided by the first station includes at least one of a network type, a network capability, a network activity level, a signal strength, a bandwidth, a signal-to-noise ratio, a signal-to-interference ratio, a multipath condition, a service provider, a monetary cost, user-preferred information, and a user-preferred service.
- (Original) The method of claim 1, further comprising: adjusting the first frequency reference to provide a reference frequency substantially equal to a reference frequency provided by the second frequency reference.
- (Canceled)
- (Currently Amended) The method of claim 1, further comprising: selectively coupling another one of the plurality of receivers to a third frequency reference to communicate with a third station over another signal path not included in the plurality of signal paths; and

handing off communications with at least two of the plurality of receivers, while such two receivers are configured to operate as a multiple-input multiple-output system, from the second station to the third station after determining that a quality of service provided by the third station is greater than a quality of service provided by the second station.

7. (Canceled)

Title: ROAMING APPARATUS, SYSTEMS, AND METHODS WITH A PLURALITY OF RECEIVERS COUPLED TO A FIRST FREQUENCY REFERENCE TO COMMUNICATE WITH A FIRST STATION AND SELECTIVELY COUPLING ONE RECEIVER TO A SECOND FREQUENCY REFERENCE TO COMMUNICATE WITH A SECOND STATION (as amendad).

8. (Currently Amended) An article comprising a machine-accessible medium having associated data, wherein the data, when accessed, results in a machine performing:

coupling a plurality of receivers to a first frequency reference to communicate with a first station over a corresponding plurality of signal paths, wherein the plurality of receivers comprises at least three receivers; [[and]]

selectively coupling one of the plurality of receivers to a second frequency reference to communicate with a second station over a signal path not included in the plurality of signal paths; and

handing off communications with the plurality of receivers from the first station to the second station after determining that a quality of service provided by the second station is greater than a quality of service provided by the first station,

wherein the plurality of receivers are configured to operate as a multiple-input multipleoutput system, and wherein selectively coupling one of the plurality of receivers to the second frequency reference further includes

decoupling the one of the plurality of receivers from operating as a part of the multiple-input multiple-output system, while continuing to operate at least two of the plurality of receivers as a multiple-input multiple-output system;

coupling the one of the plurality of receivers to operate as a search receiver independent from the multiple-input multiple-output system;

the search receiver using a new reference frequency different from the first frequency reference; and

the search receiver communicating with the second station using the new reference frequency.

#### (Canceled)

Serial Number: 10/726,054 Filing Date: December 2, 2003

Title: ROAMING APPARATUS, SYSTEMS, AND METHODS WITH A PLURALITY OF RECEIVERS COUPLED TO A FIRST FREQUENCY REFERENCE TO COMMUNICATE WITH A FIRST STATION AND SELECTIVELY COUPLING ONE RECEIVER TO A SECOND FREQUENCY REFERENCE TO COMMUNICATE WITH A SECOND STATION (as amended)

10. (Original) The article of claim 8, wherein the data, when accessed, results in the machine performing:

selecting a second reference frequency to be provided by the second frequency reference based on one of an arbitrary scan process, a list of frequencies, and a location of the plurality of receivers.

- 11. (Original) The article of claim 8, wherein a first reference frequency to be provided by the first frequency reference is selected in accordance with a channel designated by one of an Institute of Electrical and Electronics Engineers (IEEE) 802.11 standard or an IEEE 802.16 standard.
- 12. (Original) The article of claim 8, wherein a selected one of the plurality of receivers is included in a transceiver.

Title: ROAMING APPARATUS, SYSTEMS, AND METHODS WITH A PLURALITY OF RECEIVERS COUPLED TO A FIRST FREQUENCY REFERENCE TO COMMUNICATE WITH A FIRST STATION AND SELECTIVELY COUPLING ONE RECEIVER TO A SECOND FREQUENCY REFERENCE TO COMMUNICATE WITH A SECOND STATION (as amendad).

## 13. (Currently Amended) An apparatus, comprising:

a plurality of receivers to couple to a first frequency reference and to communicate with a first station using a plurality of signal paths, wherein the plurality of receivers comprises at least three receivers, at least two of which are to operate as part of a multiple-input multiple-output system;

a circuit to decouple one of the plurality of receivers from operating as a part of the multiple-input multiple-output system, while at least two of the plurality of receivers continue to operate as the multiple-input multiple-output system;

a circuit to couple the one of the plurality of receivers to operate as a search receiver independent from the multiple-input multiple-output system, the search receiver to use a new reference frequency different from the first frequency reference, and the search receiver to communicate with a second station using the new reference frequency;

a determination module to compare a quality of service provided by the first and second stations; and

a circuit, responsive to the determination module, to hand off communications with the plurality of receivers from the first station to the second station if the quality of service provided by the second station is greater than the quality of service provided by the first station

wherein at least one of the plurality of receivers can be selectively coupled to the first frequency reference or to a second frequency reference to communicate with a second station using a signal path not included in the plurality of signal paths.

## (Canceled)

15. (Original) The apparatus of claim 13, wherein the first frequency reference comprises a first frequency synthesizer, and wherein the second frequency reference comprises a second frequency synthesizer.

## 16. (Canceled)

Title: ROAMING APPARATUS, SYSTEMS, AND METHODS WITH A PLURALITY OF RECEIVERS COUPLED TO A FIRST FREQUENCY REFERENCE TO COMMUNICATE WITH A FIRST STATION AND SELECTIVELY COUPLING ONE RECEIVER TO A SECOND FREQUENCY REFERENCE TO COMMUNICATE WITH A SECOND STATION (as amendation).

- 17. (Currently Amended) The apparatus of claim 13 [[16]], wherein the quality of service provided by the first station includes at least one of a network type, a network capability, a network activity level, a signal strength, a bandwidth, a signal-to-noise ratio, a signal-to-interference ratio, a multipath condition, a service provider, a monetary cost, user-preferred information, and a user-preferred service.
- 18. (Original) The apparatus of claim 13, further comprising:

a third frequency reference, wherein at least another one of the plurality of receivers can be selectively coupled to the first frequency reference or the third frequency reference to communicate with a third station using another signal path not included in the plurality of signal paths.

19. (Original) The apparatus of claim 13, wherein the plurality of signal paths comprise a portion of a multiple-input, multiple-output communication system, and wherein the signal path is a search signal path, further comprising:

a third frequency reference, wherein at least another one of the plurality of receivers can be selectively coupled to the first frequency reference or the third frequency reference to communicate with a third station using a second search signal path not included in the plurality of signal paths.

Title: ROAMING APPARATUS, SYSTEMS, AND METHODS WITH A PLURALITY OF RECEIVERS COUPLED TO A FIRST FREQUENCY REFERENCE TO COMMUNICATE WITH A FIRST STATION AND SELECTIVELY COUPLING ONE RECEIVER TO A SECOND FREQUENCY REFERENCE TO COMMUNICATE WITH A SECOND STATION (as amended)

## 20. (Currently Amended) A system, comprising:

a plurality of receivers to couple to a first frequency reference and to communicate with a first station using a plurality of signal paths.

wherein the plurality of receivers comprises at least three receivers, at least two of which are to operate as part of a multiple-input multiple-output system;

a circuit to decouple one of the plurality of receivers from operating as a part of the multiple-input multiple-output system, while at least two of the plurality of receivers continue to operate as the multiple-input multiple-output system;

a circuit to couple the one of the plurality of receivers to operate as a search receiver independent from the multiple-input multiple-output system, the search receiver to use a new reference frequency different from the first frequency reference, and the search receiver to communicate with a second station using the new reference frequency;

a determination module to compare a quality of service provided by the first and second stations;

a circuit, responsive to the determination module, to hand off communications with the plurality of receivers from the first station to the second station if the quality of service provided by the second station is greater than the quality of service provided by the first station;

wherein at least one of the plurality of receivers can be selectively coupled to the first frequency reference or to a second frequency reference to communicate with a second station using a signal path not included in the plurality of signal paths;

a processor to couple to the plurality of receivers; and a display to couple to the processor.

(Original) The system of claim 20, further comprising:
a transceiver including a selected one of the plurality of receivers.

Serial Number: 10/726,054 Filing Date: December 2, 2003

Title: ROAMING APPARATUS, SYSTEMS, AND METHODS WITH A PLURALITY OF RECEIVERS COUPLED TO A FIRST FRQUENCY REFREENCE TO COMMUNICATE WITH A FIRST STATION AND SELECTIVELY COUPLING ONE RECEIVER TO A SECOND FREQUENCY REFERENCE TO COMMUNICATE WITH A SECOND STATION (as amended)

# 22. (Original) The system of claim 20, further comprising:

a third frequency reference, wherein at least another one of the plurality of receivers can be selectively coupled to the first frequency reference or to the third frequency reference to communicate with a third station using another signal path not included in the plurality of signal paths.

(Original) The system of claim 20, further comprising:
a one-to-one corresponding plurality of antennas to couple to the plurality of receivers.